REMARKS

Support for new claims 21-24

Support for new claims 21-24 can be found in Figs. 2 and 3 of the specification.

35 U.S.C. 112, first paragraph

The Examiner rejects claims 17-20 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification. The Examiner is reminded that the figures of an application constitute part of the description, and that which is not explicitly described in the specification, but shown in the figures is still supported by the specification. Claims 17-20 all recite "*said field oxide layer has an uppermost side, said metal plug contact being disposed on said uppermost side of said field oxide layer*". Fig. 2 as originally filed shows a field oxide layer 4 whereon a metal plug contact 7 is disposed on the uppermost side. In addition, Fig. 2 as presented in the response of March 28, 2002 to the Official Action dated December 28, 2001, shows a field oxide layer 11 whereon a metal plug contact 7 is disposed on the uppermost side. Claims 17-20 are fully supported by Fig. 2 as originally filed and the Examiner is requested to withdraw his rejection against claims 17-20.

35 U.S.C. 112, second paragraph

The Examiner rejects claims 1-20 under 35 U.S.C. 112, second paragraph as being indefinite. The Examiner states that the limitation "field oxide layer disposed on a semiconductor substrate" in claims 1, 5, and 9 is not understood. Under 35 U.S.C. 112, second paragraph, the Examiner may only issue a rejection against the claims if the claims themselves are indefinite. Claims 1, 5, and 9 all recite "*field oxide layer....a metal plug contact disposed within a contact region and above said*

field oxide layer". The claims clearly and distinctly recite the field oxide layer and therefore are not indefinite. Furthermore, when the field oxide layer is read in view of Fig. 2, it is clear which field oxide layer has a metal plug contact which is disposed within a contact region and located above the field oxide layer. The Examiner is requested to withdraw his rejection against claims 1, 5, and 9 as being indefinite. The Examiner also states that claims 10-20 are rejected due to there dependency on the rejected base claims. However, the Examiner will note that claims 13-16, and 20 are not dependent on base claims 1, 5, or 9.

35 U.S.C. 102(e)

The Examiner rejects claims 1-20 under 35 U.S.C. 102(e) as being anticipated by Scott et al. The Applicants respectfully disagree for the reasons discussed below.

Claims 1, 5, 9, and 13 all recite "*a metal plug contact...disposed above said field oxide layer*". The metal plug contact of the present invention is disposed above a field oxide layer. With respect to claims 1, 5, 9, and 13, the Examiner states that Scott et al. in Fig. 6 discloses a metal plug contact [26] disposed...above said field oxide layer. Also, in the section of the Official Action entitled, Response to Arguments, the Examiner states that "a layer of silicide 20 is below the metal plug contact 26 and on the active region 10. Therefore, the metal plug contact 26 is clearly disposed above the field oxide layer 22." The Examiner admits that the layer of silicide 20 is located below the metal plug contact 26. If the silicide layer 20 is below the metal plug contact 26, then the metal plug contact 26 must be located above the silicide layer 20, and not the field oxide layer 22 as asserted by the Examiner. As shown in Fig. 6 of Scott et al. the oxide layer 22 is located next to the metal plug contact 26. As such, Scott does not teach a metal plug contact disposed above a field oxide layer as claimed in claims 1, 5, 9, and 13 of the present application. Incidentally, the Examiner will note that his comments under the heading Response to Arguments are only directed to claims 1, 5, and 9. It appears the Examiner has been persuaded by the

Applicants' previous arguments with respect to claim 13 in view of Scott. It is therefore submitted that claims 1, 5, 9, and 13 are patentable. Since claims 2-4, 6-8, 10-12, and 14-20 are directly or indirectly dependent on claims 1, 5, 9, and 13 it is submitted that those claims are patentable for at least the same reason.

Furthermore, claim 1 of the present application recites the language "*a metal plug contact disposed within a contact region*", and claims 9 recites the language "*a metal plug contact disposed outside a contact region*". Similarly claim 5 recites the language "*a metal plug contact disposed within a contact region*" and claim 13 recites the language "*a metal plug contact disposed outside a contact region*". In the paragraph bridging pages 3 and 4 of the office action regarding claim 1, the Examiner asserts that "Scott et al. discloses on Fig. 6...a metal plug contact [26] disposed within a contact region". Furthermore, at the paragraph bridging pages 4 and 5 of the office action regarding claim 9, the Examiner states that "Scott et al. discloses on Fig. 6...a metal plug contact [26] disposed outside a contact region". The Examiner makes analogous statements with respect to claims 5 and 13. It is unclear to the Applicants how Scott et al. can show the same metal plug contact [26] in Fig. 6 being simultaneously disposed within a contact region and disposed outside a contact region, since the terms "within" and "outside" are distinctly different. The Examiner has improperly rejected claims 1-20 by characterizing the Scott reference in two distinct manners to reject distinctly different claims. To receive a rejection under 35 U.S.C. 102, the reference must teach each and every aspect of the claimed invention. Clearly, Scott does not teach each and every aspect of the claimed invention if Scott must be characterized in two distinct manners to reject the claims. The Examiner is respectfully requested to clarify his application of the teachings of Scott in two distinctly different ways against the present claims or to withdraw his 35 U.S.C. 102(e) rejection against claims 1-20.

Additionally, the Examiner asserts that Scott et al. teaches a contact region. However, the Examiner does not specifically refer to an element in Scott et al. which discloses a contact region.

Under CFR 1.104(c)(2), "when a reference is complex or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable". The Examiner has referred to a contact region generically and has not provided a specific designation of a contact region in Scott. Therefore, the Examiner is respectfully requested to designate the particular parts of Scott relied upon to reject the claims. Otherwise, the Examiner is respectfully requested to withdraw the rejection of claims 1-20 under 35 U.S.C. 102(e) based on Scott.

The Examiner also asserts that claims 17-20 are anticipated by Scott. Claims 17-20 each recite "*said field oxide layer has an uppermost side, said metal plug contact being disposed on said uppermost side of said field oxide layer.*" As discussed above, the metal contact disclosed in Scott is disposed on the silicide layer 20, and not the field oxide layer. Furthermore, as shown in Fig. 6 of Scott, there is nothing disposed on the field oxide layer. Therefore, the Applicants submit the metal plug 26 disclosed in Scott is not disposed on the uppermost side of the field oxide layer, as claimed in claims 17-20 of the present application. It is therefore submitted that claims 17-20 are patentable.

35 U.S.C. 102(b)

The Examiner rejects claims 1-3, 5-7, 9-11, and 13-15 under 35 U.S.C. 102(b) as being anticipated by Sur et al. The Applicants respectfully disagree for the reasons discussed below.

Claims 1, 5, 9, and 13 of the present invention each recite, "*a metal plug disposed within a contact region*". The Examiner asserts that Sur teaches a contact region, however, the Examiner does not specifically refer to an element in Sur which discloses a contact region. In order to establish a prima facia case of anticipation under 35 U.S.C. 102(b), each and every element of the claimed invention must be shown. Furthermore, under CFR 1.104(c)(2), "when a reference is

complex or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable". The Examiner in his Official Action refers to a contact region generically, but does not refer to a specific element in Sur which discloses a contact region. Therefore, the Examiner is respectfully requested to designate the particular parts of Sur relied upon to reject the claims. Otherwise, the Examiner is respectfully requested to withdraw the rejection of claims 1-3, 5-7, 9-11, and 13-15 under 35 U.S.C. 102(b) based on Sur.

Furthermore, at page 1 of the Official Action, the Examiner states that with respect to claims 1 and 5, "Sur et al. discloses on Fig. 13...a metal plug contact [36] disposed within a contact region". Furthermore, at the page 7 of the office action the Examiner states with respect to claims 9 and 13 "Sur et al. discloses on Fig. 13...a metal plug contact [36] disposed outside a contact region". As discussed above under the subheading 35 U.S.C. 102(e) it is unclear to the Applicants how Sur et al. can show the same metal plug contact [36] in Fig. 13 being simultaneously disposed within a contact region and disposed outside a contact region. The Examiner has improperly rejected these claims by characterizing the Sur reference in two distinct manners to reject distinctly different claims. To receive a rejection under 35 U.S.C. 102, the reference must teach each and every aspect of the claimed invention. The Examiner is respectfully requested to clarify his application of the teachings of Sur in two distinctly different ways against the present claims or to withdraw his 35 U.S.C. 102(b) rejection against these claims.

Patentability of the New claims

New claims 21-24 recite "said metal plug contact contacts said field oxide layer". Neither Scott nor Sur teach such a feature. Scott teaches a metal plug contact which is in contact with silicide as shown in Fig. 6 of Scott, and Sur teaches a metal plug contact which is in contact with a silicide layer. Furthermore, as shown in Fig. 13 of Sur, the silicide layer prevents the metal plug

contact from contacting the field oxide layer.

Conclusion

Hence, the Applicants respectfully submit that in light of the remarks above, all previous rejections of the claims have been overcome. Therefore, the Applicants submit that the claims are allowable over the prior art that has been cited. Favorable consideration and prompt allowance are earnestly solicited.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415. In particular, if this response is not timely filed, the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection therewith may be charged to deposit account no. 12-0415.

Reconsideration is respectfully requested.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C., 20231 on:

September 9, 2002
(Date of Deposit)

Ross A. Schmitt
(Name of Applicant, Assignee or Registered Representative)

Ross A. Schmitt
(Signature)

9-9-2002
(Date)

Respectfully submitted,

Ross A. Schmitt
Attorney for Applicant
Reg. No.: 42,529
LADAS & PARRY
5670 Wilshire Boulevard
Suite 2100
Los Angeles, California 90036
323-934-2300